

APPENDIX D - ALSE

D.1 - PURPOSE

The purpose of this Appendix is to establish responsibilities, policies, and procedures to assure maximum reliability from all Aviation Life Support Equipment (ALSE) used by flight crewmembers assigned to the Facility.

D.2 - SCOPE

All personnel participating in aerial flight, either as a pilot, crew member, non-crew member or passenger, will adhere to the requirements of this SOP. Only school trained Unit ALSE personnel and the Facility ALSE Technician will perform inspection and maintenance of ALSE in accordance with published directives and regulations. The use of ALSE, survival and protection equipment, as prescribed herein, will be worn, as required, on all flights IAW AR 95-1, NGR 95-1.

D.3 - MISSION

To provide an operational program for training, inspection, maintenance, repair, cleaning and/or replacement of all ALSE assigned to the Facility and supported units. Unit ALSE personnel will have access to the Facility ALSE Shop during normal duty hours. Each unit will have a space made available in the ALSE Facility as necessary to maintain unit ALSE material and equipment. Unit ALSE personnel may coordinate use of the ALSE room from the Facility ALSE Technician prior to drill or deployment. Such use will be supervised by the Facility staff.

D.4 - DUTIES AND RESPONSIBILITIES

D.4.1 - COMMANDER

The Commander will ensure that all applicable regulations are being followed and that the resources of time, personnel, money and assistance from other persons (see below) are provided in a timely and professional manner. He will ensure that all the required equipment is available and qualified personnel are given the time to perform their tasks.

D.4.2 - ASO

The ASO will monitor all activities for the commands to ensure the proper use of protective clothing and ALSE. Lack of or misuse of protective clothing and ALSE constitutes grounds for an Operational Hazard Report (OHR). OHRs will be submitted on a DA Form 2696-R (Operational Hazard Report) IAW 95-1 and AR 385-95. The ASO will maintain the records for annual ALSE training during the Safety Stand-down and ensure time is allotted for this training. The ASO will inspect the facility ALSE shop quarterly and sign the log IAW with Fm 1-508.

D.4.3 - FLIGHT SURGEON

Flight Surgeon will provide assistance to the ALSE Technician in aero medical aspects of ALSE and will conduct periodic inspections of the ALSE Shop IAW FM 1-508.

D.4.4 - ALSE OFFICER

Aviation Life Support Officer (ALSO) will also be ALSE maintenance qualified IAW AR 95-1; NGR 95-3; NGR PAM 385-95; FM 1-508 and will be appointed on orders. He/she will assist, advise,

and represent commanders in all matters pertaining to the Aviation Life Support System (ALSS). The ALSO will:

1. Review, analyze, and develop procedures for planning, budgeting, and maintaining the ALSS
2. Ensure that aircrew personnel are trained in the proper operation, use, and maintenance of survival equipment and the techniques of survival.
3. Supervise the Life Support Section and ensure that qualified personnel are available for conducting life support, survival training and maintenance of organizational level ALSE.
4. Keep a current file of regulations, procedures, and TMs pertaining to inspection, maintenance and use of assigned life support equipment.
5. Ensure that all members of the Facility have adequate information and training before using equipment or system changes.
6. Ensure that the Facility encourages life support equipment suggestions and OHRs.
7. Ensure that material deficiency reports are submitted on life support equipment failing to operate as designated.
8. Participate as an ALSE Member on the Facility Aviation Safety Council.
9. Assist higher headquarters in standardizing their ALSE Program amongst the supported units and facilities within the state.
10. Prepare an ALSE budget or ensure higher headquarters prepares one for him. Ensure that units are provided with a copy of the ALSE budget and assist them with the production of an ALSE budget in the event of activation.
11. Coordinate the annual survival-training requirement with all supported units.
12. Plan annual ALSE training for all units on the annual Safety Stand-down day.

D.4.5 - ALSE TECHNICIAN

Aviation Life Support Technicians (Aircraft Survival and Flight Equipment Repairers) will be ALSE maintenance qualified IAW 95-1; NGR PAM 385-95; FM 1-508 and will be appointed on orders. They will assist, advise and represent the ALSO in all matters pertaining to ALSE. Specifically, they will:

1. Establish a library of ALSE publications and ensure that the Facility's pinpoint distribution account is updated to include ALSE publications and necessary forms for inspections and maintenance of life support equipment.
2. Ensure that all ALSE is maintained in a high state of readiness through inspecting, cleaning, fitting, adjusting, and repairing. Provide assistance and guidance to the Unit ALSE personnel and ensure that unit ALSE is also maintained in a high state of readiness.
3. Maintain records and files on inspections, maintenance, expiration dates, and supply pertaining to ALSE IAW the appropriate technical manuals (TM). Provide assistance and guidance to unit ALSE personnel to ensure unit records and files on inspections, maintenance, expiration dates, and supply pertaining to Unit ALSE is IAW the appropriate TM.
4. Assist supported unit's ALSE Officers and NCOs by providing and/or coordinating the necessary facility resources to ensure that they have a viable ALSE program. The ALSE Technician is responsible for assisting supported units to meet all ALSE program inspection criteria.
5. Participate as enlisted representative at Aviation Safety Meetings and ALSE Conferences/Workshops.

6. Be responsible for the inspection and inventory of all controlled drugs used in survival kits and survival vests.
7. Maintain clothing and equipment in a high state of readiness to include assisting the facility supply NCO in ordering, receiving, issuing, requisition, follow-up, inventory and accountability.
8. LAAASF supply will function as a limited CIF for supported units IAW other published guidance. All initial issue will be through the supply section. Aircrew will then take the equipment to ALSE to be inspected prior to use. An equipment locker will also be issued through the ALSE shop.

D.5 - INITIAL ALSE ISSUE

As a limited CIF, LAAASF will provide an initial issue of the following equipment;

Flight Suit	3 Each
Flight Gloves	2 Each
Jacket, Flyers (Summer)	1 Each
Jacket, Flyers (Winter)	1 Each
HGU 56/P Helmet	1 Each
SRU-21/P survival vest (or equivalent)	Each (as auth by CTA 50-900)

1. DX of unsafe or damaged flight gear will be initiated through ALSE. If possible an immediate exchange will be made; otherwise the equipment will be properly tagged and the crewmember will be directed to the Supply section. In no case will the crewmember fly with unsafe or damaged gear.
2. Upon separation or transfer, the crewmember will return all serviceable flight gear back to the CIF (supply) to clear his/her hand-receipt.
3. The ALSE Technician will ensure all personnel working on ALSE are school trained (qualified-Q2) with orders on file in the ALSE shop. Non-school trained personnel may assist in the ALSE shop provided that they are under the direct supervision of the ALSE Tech or ALSO at all times. They will not sign off any inspections for any ALSE equipment.

D.5.1 - PILOTS-IN-COMMAND (PIC)

1. Pilots-in-command will ensure that all ALSE commensurate with the mission and the operational environment is available on the aircraft and the aircrew members and passengers are briefed on its location and use IAW AR 95-1 and applicable ALSE publications.
2. Ensure all aircrew members wear required survival and safety equipment during flight operations.
3. Ensure at least one operable survival radio will be worn by an aircrew member. If available, an operable survival radio for each aircrew member will be carried in their survival vest. As a minimum, one individual survival kit will be on board the aircraft. Each survival vest and aircraft survival kit (AMSS) will have an updated DD form 1574 (yellow) serviceability tag attached. The survival vest yellow tag will be located in the inside pocket and the AMSS kit will have the yellow tag taped to the top of the box. The SPH-4 helmet will be labeled with the current inspection expiration date on the back of the helmet.

4. Ensure that there are seat belts installed for all personnel seated inside the aircraft and that all passengers are thoroughly briefed on their use.
5. If applicable, ensure that patients on litters are secured by litter-restraining straps during take-offs, landings, and during times of turbulence.
6. Ensure all aircrew members are in proper and serviceable flight uniform, collar up, sleeves down, IAW AR 95-1, during all aircraft operations. The proper uniform will be:
 1. Leather boots (no zippers)
 2. Flight helmet
 3. Flight suit
 4. Flight gloves (Nomex)
 5. Cotton, wool, or Nomex undergarments
 6. Identification tags (no blackrubber or plastic covering)

D.5.2 - INDIVIDUAL AIRCREW MEMBERS

The Aircrew Member will:

1. Comply with all regulations, ALSE publications, the provisions of this SOP, and their Unit ALSE SOP.
2. Ensure that the required periodic inspection has been accomplished on his/her personal flight gear and the DD form 1574 (inspection tag) is current. A label displaying the inspection due date is placed on the back of the aircrew member's helmet, and the survival vest has the yellow inspection tag on the inside pocket. The inspection dates for these items should match.
3. Perform a preflight inspection of all ALSE prior to each flight, and a post flight inspection of all ALSE.
4. Be responsible for care, cleaning, serviceability and security of personal ALSE.
5. Ensure that the survival vest and helmet remain in assigned ALSE lockers when not in use. It is recommended that ALSE equipment not be removed from the Facility except for approved schools so that it can be inspected by ALSE personnel on or before the inspection due date. If the gear is not in locker when it becomes due for inspection then the crewmember's name will be added to a suspension list in Operations. He/She will then be restricted from flying with their own equipment until they have ensured that it has been inspected. In the interim a loaner helmet may be checked out from operations.
6. ALSE worksheet requests are provided to the right of the interior ALSE door. The completed request is then left in the bin provided so that the ALSE Technician can initiate the repairs.

D.6 - FIRST AID KITS

D.6.1 - ALSE TECHNICIAN RESPONSIBILITIES

1. Responsible for inspection, repair and/or replacement of all first aid kits issued to crew members or aircraft assigned to the Facility.
2. Monitors the inventory of replacement components for the first aid kits at the Facility.
3. Responsible for the proper disposal/destruction of expired medical components of the first aid kits.
4. Maintains records for accountability of controlled/non-controlled substance components of the first aid kits. All substances referred to in this SOP are 6505 Medical Materials.

5. May certify other technicians or crewmembers IAW AR 95-1 and TM 1-1500-204-23-1, par 11-19j, to inspect Aircraft First Aid Kits.

D.6.2 - MAINTENANCE PERSONNEL RESPONSIBILITIES

1. Responsible for inspecting and maintaining the first aid kits assigned to facility aircraft.
2. Prepares and maintains records pertaining to the aircraft first aid kits.
3. Reports to ALSE Technician any shortages of medical supplies or difficulties with completion of inspections.

D.6.3 - CREWMEMBER RESPONSIBILITIES

1. Each crewmember is accountable for the components of the first aid kits issued. This includes controlled and non-controlled substances.
2. Components of the first aid kits will only be used in a medical situation where it is unreasonable to find another source (i.e. aspirin) to meet a non-urgent need.
3. Use of any component of the first aid kit will be reported immediately to the appropriate life support personnel or authorized technician so it can be properly replenished, inspected and brought back into service.

D.7 - SHOP OPERATIONS

D.7.1 - EQUIPMENT ISSUE, STORAGE, AND MAINTENANCE

1. AN/PRC-90 survival Radios, ELTs, and LPU-10/P Life Preservers will be stored in a secure cabinet in the Facility Operations Office. Respective unit's survival radios (AN/PRC-90) and life preservers (LPUs) may be consolidated and stored in Flight Operations to support AFTPs. Unit equipment will be signed for by the Facility property book officer.
2. The Facility ALSE Technician along with the Unit's ALSE personnel will maintain equipment IAW all regulations, publications, and the provisions of this SOP. The primary storage area will be in the Facility Operations Office. Above referenced equipment will be returned to ALSE only for inspection and/or repair.
3. Operations will administer a system that provides for temporary issue and accountability of equipment for use on flights. Operations personnel will sign out equipment to crewmembers on the equipment sign-out register.
4. Units may maintain some of their own equipment (PRC-90 radios, LPU10s) that the facility finds excess to normal support operations. They will then be responsible for maintaining that equipment and ensuring it is inspected in a timely manner IAW all applicable regulations and TMs.
5. Training flotation equipment will be marked "FOR TRAINING ONLY" prior to being stored.
6. Unit Night Vision Devices (NVDs) are consolidated and stored in a vault style cabinet in the Flight Operations area. They are signed for by the Facility property book officer. All maintenance is administered by the Facility NVD NCO and is not a function of ALSE Operations.

D.7.2 - OPERATIONS ISSUE

The following equipment is available for use by aircrew members and passengers that may be signed out from the Facility Operations Center.

AN/PRC-90 Survival Radio

ELT
Individual Life Preserver (LPU)
Headset
Earplugs**
Night Vision Devices
Hood
Personal Restraint Harness

D.7.3 - EXPENDABLE ISSUE ITEM

Bench stock of repair parts for personal ALSE equipment will be maintained in the ALSE shop. Replacement parts for the aircraft survival kits will be stored in the ALSE storage area in hanger 1. All overstock of ALSE repair parts will be stored there also. All bench stock will be maintained IAW appropriate supply regulations.

D.7.4 - INDIVIDUAL ALSE STORAGE

1. All aircrew members shall be assigned a metal, securable locker within the Facility Locker Room. Aircrew members are required to store the following items of equipment in their assigned locker when not flying: SPH-4 Helmet, Survival Vest, Flight Gloves, Helmet Bag, and Personal Restraint Harness. Approved exceptions to this policy include attending a flying course of instruction, annual training or flight simulator training. A copy of orders or a note explaining the absence of the flight gear should be placed in the locker by the aircrew member.
2. Small accessories regularly used by the crewmember on flights may also be stored in the locker. (IE: flashlight, kneeboard, skullcap, etc). Larger items must be stored in a separate location. Lockers to store additional equipment are located in the restroom areas and are available for issue through the ALSE office.
3. Any items found in the helmet lockers that are not supportive of the flight environment will be removed by the ALSE Technician and turned over to the appropriate facility Instructor Pilot (IP). The crewmember can then coordinate with the IP for retrieval of the items.

D.7.5 - HOURS OF OPERATION

The Facility ALSE Shop will be available during normal duty hours, based on the Facility's work schedule. Access during non-duty hours requires prior coordination with the Facility ALSE Technician for signing out the ALSE Shop.

D.8 - ALSE INSPECTION CRITERIA, INTERVALS & REFERENCES

D.8.1 - SRU-21/P SURVIVAL VEST / AIRCREW SURVIVAL VEST TYPE I (SARVIP)

The Survival Vest components list is provided in Annex DB. All life support items will be inspected or tested at required intervals according to appropriate Army technical manuals, Air Force technical orders, and Navy NAVAIR publications. Survival Vests will be inspected before issue and every 120 days according to TM 55-1680-317-23&P. Inspection results will be recorded on DA Form 2408-25.

D.8.2 - FLIGHT HELMETS

Helmets will be inspected every 120 days IAW TM 1-8415-216-12&P. Night vision goggle mounts will also be inspected every 120 days. These inspections will be completed by personnel trained

and on orders to perform NVD maintenance. Inspection results will be recorded on DA Form 2408-22.

D.8.3 - SURVIVAL RADIOS

AN/PRC-90 radios will be tested monthly. Surplus operational radios not used in daily flight operations will be inspected every 120 days. The AN/PRM-32 test set will be used to test the radios IAW TM 11-5820-800-13&P. Results will be recorded on DA form 2408-23. Batteries for the AN/PRC-90 are tested monthly before testing radios using the TS-2530A/UR IAW TM 11-5820-800-1. If other survival radios come into the inventory they will be inspected according to the applicable manuals. The test sets will be on the TDA or, if unavailable, signed for from the supported units on a hand receipt.

D.8.4 - PERSONAL RESTRAINING HARNESSES

Inspection of personal restraint harness will be IAW TM 1-1500-204-23-1 and Operators Manual.

D.8.5 - LIFE PRESERVERS

LPU-10/P will be inspected annually per ALSE Message _____ and TM 5-4220-202-14/TO 14S-1-102. Inspections will be annotated on DA Form 2408-26 and DA Form 2408-27. The DA Form 2408-27 will accompany the individual life preserver at all times.

D.8.6 - SURVIVAL KITS

All survival kits will be inspected before issue and every 360 days IAW TM 55-1680-354-23&P. Inspection results will be recorded on DA Form 2408-24.

D.8.7 - HARNESS ASSEMBLY, AIRCRAFT.

Safety personnel retaining harness will be inspected every 120 days according to TM 1-1500-204-23-1 by the Facility ALSE Technician and prior to each flight by the crewmember.

D.8.8 - CPC

All ALSE equipment will be incorporated into the Corrosion Prevention Control program IAW TM 1-1500-328-23 and other applicable TM's and TB's. The maintenance SOP also addresses CPC. All corrosion whether metal or otherwise will be monitored, cleaned and reported as necessary IAW applicable regulations.

D.9 - INSPECTION RECORDS

Any ALSE items failing to pass required inspections or tests will be tagged with appropriate DD Form 1577 (Unserviceable [Condemned] Tag) or DD Form 1577-2 (Unserviceable [Repairable] Tag). Items which can be repaired locally will be stored separately from serviceable items until repairs are completed. Personal flight gear for personnel TDY or extended medical groundings will be tagged (DD Form 1577-2) and kept in the person's locker. All other items will be processed for repair, turn-in, or replacement through appropriate maintenance or supply channels. All support files and equipment records pertaining to ALSE will be maintained in the Facility ALSE Shop.

D.10 - ALSE LIBRARY

A complete and current library of all publications pertaining to applicable ALSE will be maintained in the ALSE shop. Those publications not on hand will be documented and ordered through the appropriate publications NCO/Officer.

Units will be allocated space to keep their ALSE libraries within the ALSE shop. Ordering unit publications and posting changes will be a unit responsibility.

D.11 - PREFLIGHT PROCEDURES

Aircrew members should use the following ALSE inspection PMCS procedures prior to each flight.

D.11.1 - FLIGHT HELMET.

1. Lower and raise visor to ensure it moves freely in its tracks. Inspect visor lock to ensure it locks visor in lowered or retracted position. Inspect visor for any obstructions to vision.
2. Checks for cracks, defects and cleanliness.
3. Check the retention assembly for defects and cleanliness.
4. Inspect ear cup tension, cross straps, spacer pads, headband and suspension assembly for defects and cleanliness.
5. Check ear cups and wiring harness for obvious damage.
6. Check microphone, boom and cord for damage.
7. Check edge beading for rips/tears, etc.
8. If applicable, check TPL for defects and Velcro tab security.
9. Exterior of helmet for loose or missing screws. Shell for cracks, damaged surface, etc.

D.11.2 - SRU-21/P SURVIVAL VEST/ SARVIP

1. Check for holes, cuts, tears, broken or loose stitching.
2. Defective slide and snap fasteners.
3. Torn or missing fastener tape.
4. Check for any defects and cleanliness.

D.11.3 - AN/PRC-90 SURVIVAL RADIO.

1. Inspect metal surfaces for signs of rust and corrosion.
2. Inspect back plate pressure equalization vent for damage.
3. Inspect strap for mildew fungus, dry rot, or tear damage.
4. Check the battery cap and retainer for proper removal and assembly, broken retainer, and internal corrosion.
5. Check antenna for corrosion, cross-threading or bent connector parts, sealing washer present and not deteriorated.
6. Battery should be removed and checked for signs of corrosion or alkaline leakage.
7. Check controls, operate switches, and check for chipped paint, legible identification symbols and normal operation.

D.12 - PYROTECHNICS

All pyrotechnics related to ALSE are maintained by the Facility ALSE Shop and stored IAW TM 9-1300-206, TM 43-0001-37, TM 55-1680-317-23&P and FM 1-508. The lot number and date of manufacture for all applicable pyrotechnics will be logged on the appropriate DA form 2408. Pyrotechnic inventory documents will be updated every 90 days and posted on the pyrotechnic locker. Appropriate fire hazard signs will be affixed to the locker and on all entrances to the ALSE shop IAW TM 9-1300-206, TM 43-0001-37, TM 55-1680-317-23&P and FM 1-508.

D.12.1 - PYROTECHNICS TRAINING

Pyrotechnics are to be made available for survival training and any other training opportunities as long as proper safety measures are followed. The use of pyrotechnics for training must be approved by the unit safety officer and coordinated with the post fire department.

D.13 - EQUIPMENT INVOLVED IN ACCIDENT OR INCIDENT

1. Any ALSE involved in an aircraft mishap will be handled IAW AR 385-95 and DA PAM 385-95.
2. ALSE released by the Accident Investigation Board will be inspected prior to re-issue.
3. ALSE not released will be forwarded to Fort Rucker.
4. Interface Between LAAASF and Supported Units

D.13.1 - UNIT RESPONSIBILITIES

Unit personnel will be responsible for inspection and maintenance of equipment during IDT weekends, AT, and mobilization. Additionally the units will inspect some of their equipment every quarter to maintain proficiency.

D.13.2 - LAAASF ALSE TECHNICIAN RESPONSIBILITIES

The LAAASF ALSE NCO/Technician will assist the units to maintain their shop and bench stock. Upon mobilization, the supported units ALSO or ALSNCO will draw their equipment, flyaway benches, logbooks and any other unit equipment. The Facility ALSO and ALSE Technician will provide a sample of work on a quarterly basis for the unit ALSE personnel to work on. As a minimum they will provide one of each piece of equipment (survival kit and radio, LPU, NVG etc.) and two sets of personal gear.

D.14 - USE OF LAAASF ALSE SHOP

The LAAASF will provide supervised use of the ALSE shop and equipment for inspection and testing during normal duty hours or when prior arrangements have been made. The intent is for the Facility to give unfettered access so the units' can perform their ALSE mission.

D.14.1 - ALSE TRAINING

The Facility will provide ALSE training to all crewmembers annually during the Safety Stand-down day. The Facility will coordinate the annual required survival training amongst all supported units to help fulfill the requirement and ensure all soldiers receive this training. The Facility will provide additional ALSE training as required for crewmembers required to support State or other missions which require specialized training not a normal part of crewmembers mission training (snow, mountain, over-water operations etc.)

D.14.2 - DEPLOYMENT

All units must be able to stand alone upon deployment and the Facility has a responsibility to help ensure their ALSE program can successfully deploy. Upon activation each unit will take their work bench and associated bench stock/shop stock, publications (including Form 12 changes), unit and personal ALSE equipment. Each unit will develop an ALSE budget of their own based upon the demand generated within the preceding year. They will prepare additional documentation for the visits, inspections and mandated requirements of any ALSE shop (FM 1-508). They will identify who will be supporting them when they get to their deployment location so they know how

they can complete inspections requiring equipment that is normally not available at the unit level. (This is important and the ALSE NCO and officer will assist as required.) They will prepare their SOPs for their expected deployment locations and identify any special ALSE equipment or training required for the deployment location. (Bosnia needs one thing, Kuwait another and the mountains need another type of training/equipment.)